

Amendments to the claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. **(Currently Amended)** A method for ~~the diagnosis, early detection, risk estimation and monitoring of the course of diseases, diagnosing cancer in a human patient, comprising:~~
 - (a) obtaining a serum or plasma sample of a patient;
 - (b) contacting said serum or plasma sample with one or more antibodies that recognize apolipoprotein C-I;
 - (c) determining a fraction of the total apolipoprotein C-I present in said serum or plasma sample of said patient by an immunoassay, the measured value of which is not significantly reduced by a treatment of the sample with an adsorbent with hydrophobic surfaces;
 - (d) associating elevated levels of said serum or plasma apolipoprotein C-I immunoreactivity, when compared to healthy control individuals, with the presence of cancer, and wherein the proportion of apolipoprotein C-I, which binds to hydrophobic structures, is significantly reduced compared to healthy control individuals such that the concentration of apolipoprotein C-I determined by immunoassay and the concentration of apolipoprotein C-I determined in the sample which has been treated with an adsorbent with hydrophobic surfaces have comparable values, wherein the content of apolipoprotein C-I and/or of derivatives thereof is determined in a serum or plasma sample from a human patient and the presence of a disease is

~~concluded on the basis of a result of the determination which differs significantly from the value range determined for normal healthy persons.~~

2. *(Currently Amended)* The method as claimed in claim 1, wherein ~~that~~ a fraction of the total apolipoprotein C-I present in a sample which has the ability to bind to hydrophobic molecular structures (free apolipoprotein C-I) (~~“free apolipoprotein C-I”~~), is determined.

3. *(Currently Amended)* The method as claimed in claim 1, wherein ~~that~~ the fraction of the total apolipoprotein C-I present in a sample which is detectable by direct determination in the sample using an immunoassay of the sandwich type (apolipoprotein C-I) (~~“apolipoprotein C-I”~~) is determined.

4. *(Canceled).*

5. *(Canceled).*

6. *(Currently Amended)* The method of claim 1, wherein ~~said method is carried out for the diagnosis, early detection, risk estimation and monitoring of the cause of a cancer disease and correlates a proportion~~ a decrease in the fraction of apolipoprotein C-I which is significantly

reduced compared with normal healthy persons and binds to hydrophobic molecular structures (free apolipoprotein C-I) (~~“free apolipoprotein C-I”~~) and an increased apolipoprotein C-I immunoreactivity in a serum or plasma sample of the patient with a cancer disease.

7. **(Original)** The method as claimed in claim 6, wherein, when an increased lipoprotein C-I immunoreactivity is found in a serum or plasma sample of a patient the measured value is checked by an additional control determination in which a check is carried out to determine whether the value for the determinable immunoreactivity in the sample is significantly changed by treatment of the sample with an adsorbent with hydrophobic surfaces, and wherein the presence of a cancer disease is concluded with high probability when the value does not deviate or does not deviate significantly from the original measured value.

8. **(Currently Amended)** The method of claim 1, wherein apolipoprotein C-I which binds to hydrophobic molecular structures (free apolipoprotein C-I) (~~“free apolipoprotein C-I”~~) is determined by subjecting a serum or plasma sample to hydrophobic interaction chromatography, in which apolipoprotein C-I is bound to the chromatography material, and then determining apolipoprotein C-I in the eluted protein fraction.

9. **(Currently Amended)** The method as claimed in claim 8, wherein octylsepharose is used as chromatography material, unbound constituents of the sample are removed by washing the

chromatography material, the bound proteins are eluted with a dilute acid, ~~in particular acetic acid,~~ and the amount of apolipoprotein C-I in the eluate is then determined by means of HPLC and/or immunodiagnostically.

10. *(Cancelled).*

11. *(New)* A method for diagnosing cancer in a human patient, comprising:

- (a) obtaining a serum or plasma sample of a patient;
- (b) contacting said serum or plasma sample with one or more antibodies that recognize apolipoprotein C-I;
- (c) determining the level of apolipoprotein C-I in said serum or plasma sample of said patient; and
- (d) associating elevated levels of said apolipoprotein C-I, when compared to healthy control individuals, with the presence of cancer.

12. *(New)* The method of claim 11, further comprising a step after step (a) and before (b) of mixing and incubating the serum or plasma sample with an adsorbent with hydrophobic surfaces.

13. *(New)* The method of claim 11, wherein the level of apolipoprotein C-I is determined by

immunoassay.

14. *(New)* The method of claim 11, wherein the cancer is selected from the group consisting of intestinal cancer, bronchial carcinoma, breast cancer, ovarian cancer and pancreatic cancer.